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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,342	04/19/2001	Kazumitsu Watanabe	206154US-2	7693
22850	7590	12/17/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				DANIELS, ANTHONY J
ART UNIT		PAPER NUMBER		
		2615		

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/837,342	WATANABE, KAZUMITSU	
	Examiner	Art Unit	
	Anthony J. Daniels	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 19 April 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1.) Certified copies of the priority documents have been received.
 2.) Certified copies of the priority documents have been received in Application No. _____.
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. *The is no description, besides the brief section, of Figure 3 in the specification.*

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because of the following informalities: 1) On page 2, Line 12, the term "without" should follow "... data", 2) On page 2, Line 10, Word 9, "is" should be omitted, 3) Please proofread thoroughly. There are numerous grammatical mistakes and statements with unclear language.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,3-6,15,17,19 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyatake et al. (US # 6,466,262).

As to claim 1, Miyatake et al. teaches a digital camera (see Figure 1) comprising: a photographing unit, which picks-up an image and obtains image data (see Figure 1, image sensing device "102"); a storage control unit which stores the image data in the form of an image data file in a predetermined manner (see Figure 1, CPU "112"; Col. 4, Lines 25-41) in a recording medium (see Figure 1, external storage device "110"; see Col. 4, Lines 25-41, or memory "114-2"; see Col. 5, Lines 15-19); a reconstruction control unit which reconstructs the

image data stored in said recording medium (see Figure 1, camera control program “114-1”; Col. 7, Lines 14-18; *{memory “114-2” is also considered part of the recording medium.}*); an image data processing unit (see Figure 1, camera control program “114-1”) which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit (see Figure 5; *{The image data reconstructed and the image data taken from the photographing unit are the same; the data is just sent to different memory locations; the data is reconstructed in a way that the stored information in memory “114-2” is retrieved by the camera control program and is made ready for combination (see Col. 5, Lines 15-19).}*) to produce an image data (see Figure 1, wide image “122”), and makes said recording medium store the produced image data (see Col. 5, Lines 20-23); a display unit which displays the images (see Figure 1, display “120”); a display control unit which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (see Figure 1, video memory “116”, D/A Converter “118”; Col. 4, Lines 47-56) (***(It is noted that the USPTO considers Applicant’s “or” language to be anticipated by any reference containing one of the corresponding subsequent elements)***); and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (see Figure 1, Input I/F “123”; Col. 5, Lines 7-12).

As to claim 3, Miyatake et al. teaches the digital camera according to claim 1 (see 102(e) rejection above), wherein said operational instruction inputting unit can designate whether the image data is to be displayed in enlarged or reduced manner (see Col. 5, Lines 43-47).

As to claim 4, Miyatake et al. teaches the digital camera according to claim 1 (see 102(e) rejection above), wherein said operational instruction inputting unit includes a touch panel (see Col. 5, Lines 7-11).

As to claim 5, Miyatake et al. teaches the digital camera according to claim 1 (see 102(e) rejection above), wherein said image data processing unit can combine a plurality of the image data recorded in said recording medium (see Col. 5, lines 13-19).

As to claim 6, Miyatake et al. teaches the digital camera according to claim 5 (see 102(e) rejection above), wherein said image data processing unit can perform swing and/or tilt correction when combining a plurality of the image data stored in said recording medium (see Col. 6, Lines 21-49).

As to claim 15, the limitations of claim 15 can be found in claim 1. Therefore, claim 15 is analyzed and rejected as previously discussed with respect to claim 1.

As to claim 17, claim 17 is a method claim corresponding to the apparatus claim 1. Therefore, claim 17 is analyzed and rejected as previously discussed with respect to apparatus claim 1.

As to claim 19, Miyatake et al. teaches a mobile terminal (see Figure 2) comprising: a photographing unit, which picks-up an image and obtains image data (see Figure 1, image sensing device “102”); a storage control unit which stores the image data in the form of an image data file in a predetermined manner (see Figure 1, CPU “112”; Col. 4, Lines 25-41) in a

recording medium (see Figure 1, external storage device “110”; see Col. 4, Lines 25-41, or memory “114-2”; see Col. 5, Lines 15-19); a reconstruction control unit which reconstructs the image data stored in said recording medium (see Figure 1, camera control program “114-1”; Col. 7, Lines 14-18; *{memory “114-2” is also considered part of the recording medium.}*); an image data processing unit (see Figure 1, camera control program “114-1”) which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit (see Figure 5; *{The image data reconstructed and the image data taken from the photographing unit are the same; the data is just sent to different memory locations; the data is reconstructed in a way that the stored information in memory “114-2” is retrieved by the camera control program and is made ready for combination (see Col. 5, Lines 15-19).}*) to produce an image data (see Figure 1, wide image “122”), and makes said recording medium store the produced image data (see Col. 5, Lines 20-23); a display unit which displays the images (see Figure 1, display “120”); a display control unit which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (see Figure 1, video memory “116”, D/A Converter “118”; Col. 4, Lines 47-56) (***It is noted that the USPTO considers Applicant’s “or” language to be anticipated by any reference containing one of the corresponding subsequent elements;***) and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (see Figure 1, Input I/F “123”; Col. 5, Lines 7-12).

6. Claims 8,10-13,16,18,20 rejected under 35 U.S.C. 102(b) as being anticipated by Fukushima et al. (US # 5,903,303).

As to claim 8, Fukushima et al. teaches a digital camera (see Figure 1) comprising: a photographing unit, which picks-up an image and obtains image data (see Figure 1, CCD “10R”); a storage control unit which stores the image data in the form of an image data file in a predetermined manner (see Figure 1, memory controller “17”; Col. 3, Lines 38,39) in a recording medium (see Figure 1, memory “16”); a reconstruction control unit which reconstructs the image data stored in said recording medium (see Figure 1, memory controller “17”; Col. 3, Lines 38,39); an image data processing unit (see Figure 1, “18”) which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit (see Col. 3, Lines 39-41; *{The image data reconstructed and the image data taken from the photographing unit are the same; the data is reconstructed in a way that the stored information in memory “16” is retrieved by the memory controller and is made ready for combination.}*) to produce an image data (see Col. 3, Lines 39-41, *{The combination of left and right images is the output signal.}*), and makes said recording medium store the produced image data (see Col. 3, Lines 47-49); a display unit which displays the images (see Figure 1, EVF “20”); a display control unit which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (see Figure 1, reconstructing process “19”; Col. 3, Lines 42-46,); and an operational instruction inputting unit which provides operational instruction signals to

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said photographing unit, said storage control unit, said image data processing unit, and said display control unit (see Figure 1, switches “2” and “3”; Col. 3, Lines 12-17); wherein said photographing unit includes a plurality of CCDs (see Figure 1, CCDs “10R” and “10L”), which simultaneously picks-up an image of same or a plurality of objects and obtains a plurality of image data (see Figure 1, A/D Converters “15R” and “15L”), and said display control unit can make said display unit simultaneously display the plurality of image data obtained by said photographing unit (see Col. 3, Lines 45-47).

As to claim 10, Fukushima et al. teaches the digital camera according to claim 8 (see 102(b) rejection above), wherein said image data processing unit can perform color correction for each of the plurality of image data (see Col. 3, Lines 39-42).

As to claim 11, Fukushima et al. teaches a digital camera according to claim 8 (see 102(b) rejection above), wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different zooming ratios (see Col. 3, Lines 26,27; {*Since two different drive portions are controlling zoom drive, it is inherent that the zooming ratios are different from each other.*}).

As to claim 12, Fukushima et al. teaches a digital camera according to claim 8 (see 102(b) rejection above), wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different shutter speeds (see Col. 4, Lines 41-50, {*If the other pick-up system is controlled to become equal, the shutter speeds must have been different when taken.*}).

As to claim 13, Fukushima et al. teaches a digital camera according to claim 8 (see 102(b) rejection above), wherein said photographing unit can simultaneously obtain a plurality of

images of the same object at different exposure values (see Col. 4, Lines 41-50, *{If the other pick-up system is controlled to become equal, the exposure values must have been different when taken.}.*)

As to claim 16, the limitations of claim 16 can be found in claim 8. Therefore, claim 16 is analyzed and rejected as previously discussed with respect to claim 8.

As to claim 18, claim 18 is a method claim corresponding to the apparatus claim 8. Therefore, claim 18 is analyzed and rejected as previously discussed with respect to apparatus claim 8.

As to claim 20, Fukushima et al. teaches a mobile terminal (see Figure 1) comprising: a photographing unit, which picks-up an image and obtains image data (see Figure 1, CCD “10R”); a storage control unit which stores the image data in the form of an image data file in a predetermined manner (see Figure 1, memory controller “17”; Col. 3, Lines 38,39) in a recording medium (see Figure 1, memory “16”); a reconstruction control unit which reconstructs the image data stored in said recording medium (see Figure 1, memory controller “17”; Col. 3, Lines 38,39); an image data processing unit (see Figure 1, “18”) which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit (see Col. 3, Lines 39-41; *{The image data reconstructed and the image data taken from the photographing unit are the same; the data is reconstructed in a way that the stored information in memory “16” is retrieved by the memory controller and is made ready for combination.}.*) to produce an image data (see Col. 3, Lines 39-41, *{The combination of left and right images is the output signal.}.*), and makes said recording medium store the produced image data (see Col. 3, Lines 47-49); a display unit which displays the images (see Figure 1, EVF

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“20”); a display control unit which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (see Figure 1, reconstructing process “19”; Col. 3, Lines 42-46,); and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (see Figure 1, switches “2” and “3”; Col. 3, Lines 12-17); wherein said photographing unit includes a plurality of CCDs (see Figure 1, CCDs “10R” and “10L”), which simultaneously picks-up an image of same or a plurality of objects and obtains a plurality of image data (see Figure 1, A/D Converters “15R” and “15L”), and said display control unit can make said display unit simultaneously display the plurality of image data obtained by said photographing unit (see Col. 3, Lines 45-47).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al. (see Patent Number above) in view of Fujita et al. (US # 6,321,024).

As to claim 2, Miyatake et al. teaches the digital camera according to claim 1 (see 102(e) rejection above), which contains an operational instruction inputting unit. The claim differs from

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Miyatake et al. in that it requires that the unit designate a portion of the plurality of the image data where the images are to be combined.

In the same field of endeavor, Fujita et al. teaches the ability to designate a portion of the plurality of image data where the images are to be combined (see Figure 12; Col. 3, Lines 44-53). In light of the teaching of Fujita et al., it would have been obvious to one of ordinary skill in the art to modify the camera of Miyatake et al. to include the ability to designate a portion of the plurality of image data where the images are to be combined. This ability would allow the user to combine images, which weren't taken in the same vicinity and create an image to make it seem so.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al. in view of Fukushima et al. (see Patent Numbers above).

As to claim 7, Miyatake et al. teaches the digital camera according to claim 5 (see 102(b) rejection above), which contains an image data processing unit. The claim differs from Miyatake et al. in that it requires the processor to perform color correction when combining a plurality of the image data stored in said recording medium.

In the same field of endeavor, Fukushima et al. teaches a processor that perform color processing on the plurality of images (see Col. 3, Lines 39-42). In light of the teaching of Fukushima et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Miyatake et al. to include color processing. Such a modification would allow the pictures attain the same color information before combining. With different color information, a panoramic image would not be consistent in color.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al. in view of Miyatake et al. (see Patent Numbers above)

As to claim 9, Fukushima et al. teaches the digital camera according to claim 8, wherein an image data processing unit can combine a plurality of image data (see claim 8 rejection). The claim differs from Fukushima et al. in that it requires simultaneous displaying the plurality of the image data.

In the same field of endeavor, Miyatake et al. teaches simultaneous displaying and combination of the image data (see Col. 5, Lines 51-55). In light of the teaching of Miyatake et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Fukushima et al. to include the simultaneous display and combination of the image data. Such a modification would make it possible to quickly confirm the connection of the images and to prevent failure in forming a panoramic image (see Miyatake et al., Col. 5, Lines 55-57).

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al.

As to claim 14, Fukushima et al. fails to teach a plurality of images taken of the same object by said photographing unit, which have a different white balance values. **Official Notice** is taken that both the concept and the advantages of taking images of different white balance values are well known and expected in the art. In order to achieve a white balance calculation, two images of distinctly different illuminations are taken, providing having different white

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balance values. It would have been obvious to one of ordinary skill in the art to take different white balance values, because an image, taken, used to calibrate white balance for another image will not produce a natural picture if it contains the same white balance value.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (703) 305-4807. The examiner can normally be reached on 8:00 A.M. - 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andy Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/29/2004



NGOC-YEN VU
PRIMARY EXAMINER